

UVCS LED Conveyor Systems

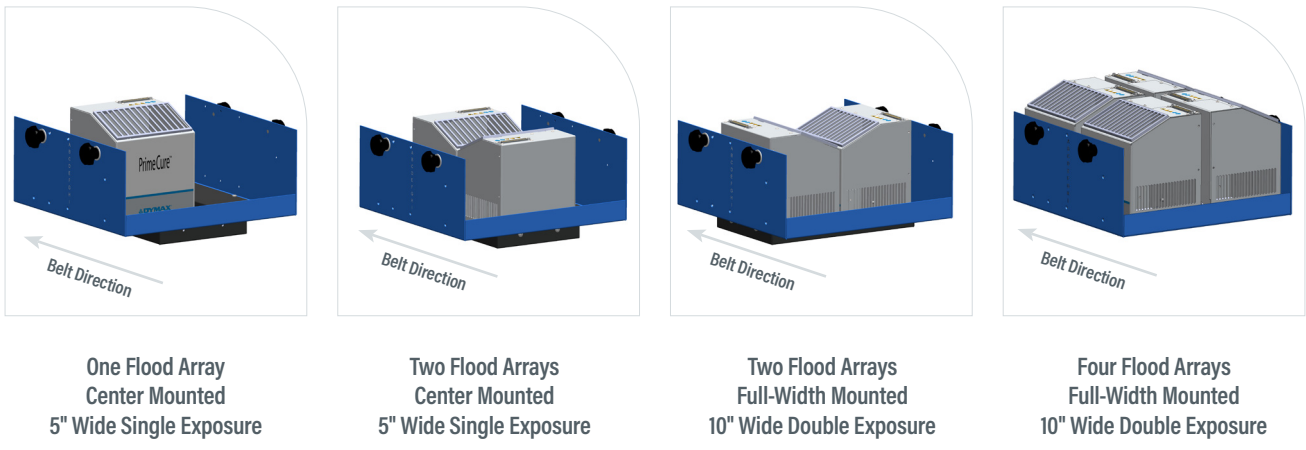
12"-Wide Curing with Multiple Lamp and Part Clearance Options

- Complete shielding from light
- Controlled and consistent cure times
- Maximum parts height of 4.25" (10.8 cm)
- 0.5" minimum height with 4", 6", or 10" vertical clearance available
- 12" belt width (guides available to channel parts into center 6")
- LED flood array available in 365, 385, and 405 nm wavelengths
- Built-in exhaust fan and stack
- Integral vacuum hold-down and cooling system
- Accurate digital belt speed control and readout
- Adjustable array-to-belt distance
- Bench-top conveyor (with optional transportation carrying cart)
- Greener technology - no ozone generation, mercury-free, environmentally friendly LED arrays consume less energy than conventional UV curing lamps

Dymax LED light-curing conveyor systems use high-intensity LED sources for fast curing of LED-curable adhesives, coatings, and inks that react in the UVA and/or visible spectral ranges. UVCS bench-top conveyors can be outfitted with one of three different wavelength BlueWave® LED flood arrays (365 nm, 385 nm, or 405 nm) and can accommodate up to four arrays. If two arrays are used, they can be mounted side-by-side or front-to-back for additional process flexibility. All UVCS conveyors have adjustable belt speeds of 1 to 32 feet per minute, and adjustable lamp-to-belt distance to address a variety of application requirements. When combined, the UVCS conveyors' consistent intensity, fast curing, and adjustable line speeds create an optimized LED light-curing process that enables high throughput.

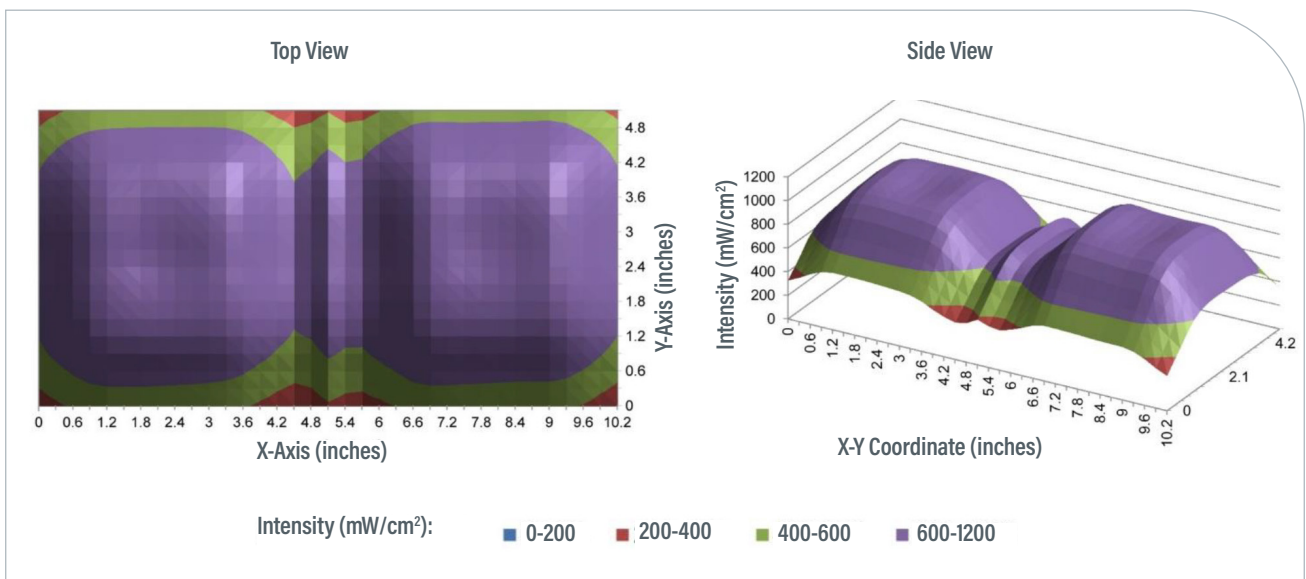
LED Flood Arrays

UVCS-series conveyors can be outfitted with one, two, or four BlueWave® LED flood arrays. If two arrays are used, they can be either center mounted (CM) or mounted full width (FW) as shown in the diagrams below. BlueWave LED flood arrays provide high-intensity curing energy over a 5" x 5" (12.7 cm x 12.7 cm) curing area. 365 nm, 385 nm, and 405 nm wavelength configurations are available. The selection of the correct wavelength array will depend on the material being used and other application requirements. Contact Dymax Application Engineering for more information on optimizing your adhesive and curing equipment.



BlueWave LED flood arrays offer high uniformity when multiple arrays are positioned next to each other, making them ideal for conveyor applications where a consistent cure across the entire substrate is important. The graphs below demonstrate the uniformity achieved when two VisiCure® arrays are mounted side-by-side on a conveyor.

Figure 1. Intensity Distribution of Two BlueWave LED Flood VisiCure Arrays (405 nm) Mounted Side-by-Side



Specifications

	RediCure® 365 nm Array						PrimeCure® 385 nm Array						VisiCure® 405 nm Array					
Part Numbers																		
Power Cord w/120 V Plug	41343	41345	41344	41346	41995	42003	41353	41355	41354	41356	41996	42004	41363	41465	41364	41366	41997	42005
Asia Type G Power Cord	-	41347	-	41348	-	42010	-	41357	-	41358	-	42011	-	41367	-	41368	-	42012
Technical Specifications																		
LED Array Voltage	90V - 260V						90V - 260V						90V - 260V					
# of Lamps	1		2		4		1		2		4		1		2		4	
Width of Illuminated Area*	5" (13 cm)		CM - 5" (13 cm) FW - 10" (25 cm)		10" (25 cm)		5" (13 cm)		CM - 5" (13 cm) FW - 10" (25 cm)		10" (25 cm)		5" (13 cm)		CM - 5" (13 cm) FW - 10" (25 cm)		10" (25 cm)	
Belt Speeds	1-32 feet per minute						1-32 feet per minute						1-32 feet per minute					
Conveyor Voltage (VAC)	120V	230V	120V	230V	120V	230V	120V	230V	120V	230V	120V	230V	120V	230V	120V	230V	120V	230V
Belt Width	12" (30 cm)						12" (30 cm)						12" (30 cm)					
Vertical Clearance	0.5" minimum height with 4" (Standard), 6" (with 2" riser, PN 39218), or 10" (with 6" riser, PN 39280)																	
Overall Dimensions	50.5" x 29.8" x 16.4" (128 cm x 76 cm x 72 cm) (L x W x H)																	
Maximum Intensity**	450 mW/cm ²						850 mW/cm ²						950 mW/cm ²					

* CM - Center Mounted, FW - Full Width

** Intensity readings vary widely depending on the make and model of the radiometer. These are typical output intensities measured with the ACCU-CAL™ 50-LED Radiometer.

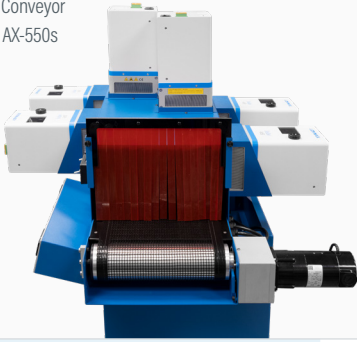
LED vs. Broad-Spectrum Systems

Dymax LED-curing systems using BlueWave® LED Flood arrays offer many advantages over conventional broad-spectrum systems, including:

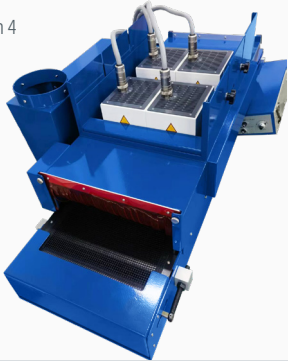
- Cooler curing for temperature-sensitive substrates. Conventional broad-spectrum lamps operate and emit energy at high temperatures, which can damage sensitive substrates or force you to make multiple passes to deliver the curing energy needed for an application.
- Large 5" x 5" curing area. Most broad-spectrum systems offer a much smaller cure area. Parts get a higher dosage with our larger cure area but with cooler cures you don't risk damage to your parts.
- Better uniformity across the cure area assure a more consistent cure results.

If you're currently curing one of our LED-optimized adhesives with a broad-spectrum lamp, our BlueWave LED Flood arrays may also properly cure your adhesive. Visit www.dymax.com for a complete listing of Dymax LED-optimized adhesives. In addition to our LED-optimized adhesives, many of our other adhesives also cure properly with the BlueWave LED Flood. Our Application Engineering group is available to help evaluate your adhesive application to see how LED-curing technology may be successfully incorporated into your current or future application needs.

Custom SideCure Conveyor
with 6 BlueWave® AX-550s



Custom UVCS V2.0 with 4
BlueWave® FX-1250s



Custom Conveyor Systems

Dymax understands customers may have unique requirements for their UV curing needs. For applications that require features beyond standard conveyor system offerings, Dymax offers customized conveyor systems tailored specifically to the needs of customers.

For additional information, please contact Dymax Equipment Services at equipmentservices@dymax.com



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